

# **Dynamic Site Inspection Case Study**



**Callaway Drum Recycling  
Site**

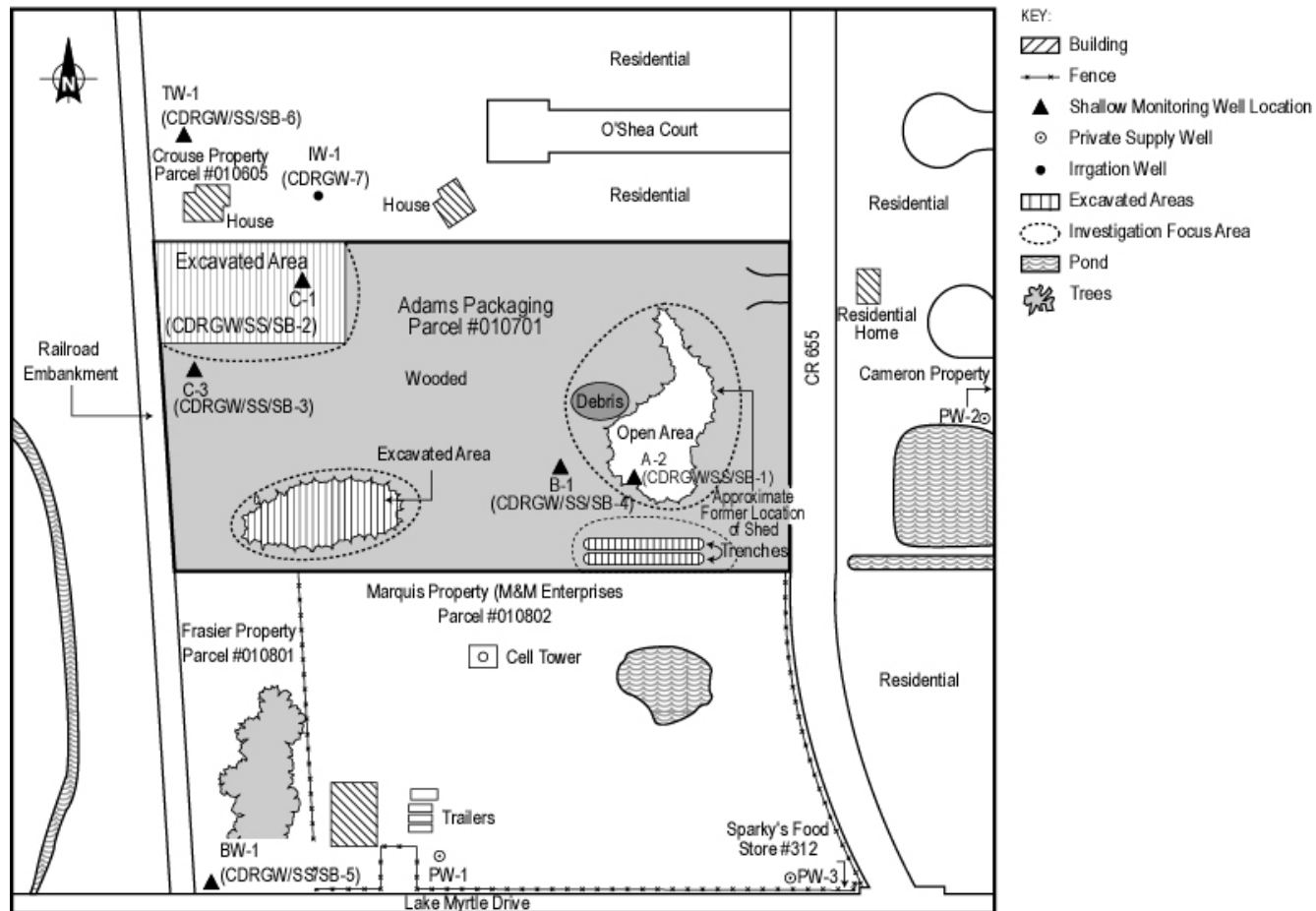
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# Background



- ⌘ Site operated as a solvent recycling facility in 1970's
- ⌘ Former employee complaint to Congressman in 2001 leads to EPA/State investigation.
- ⌘ PA/SI conducted by contractor in 2001

# Site Map



# Site Information



- ⌘ 10.66 acres of vacant property in rural area
- ⌘ Empty and corroded drums found on site
- ⌘ Former employees state that remains of drums were emptied on ground; they were then rinsed, dried, repainted, and sold.
- ⌘ 55 drinking water wells serving 38,000 people within 4 miles of site.

# PA/SI Goals and Objectives



- ⌘ Obtain information to prepare HRS
- ⌘ Define site characteristics and contaminant sources
- ⌘ Determine receptors
- ⌘ Provide FDEP and EPA with information necessary to make site decision.

# PA/SI Work Plan



- ⌘ Collect continuous soil cores at 15 to 20 locations with DP and screen with Color-Tech and TVA.
- ⌘ DP groundwater samples, 5 to 10 feet below wt, from each boring location; screened with Color-Tech and TVA.
- ⌘ 5 DP monitoring wells to be based on soil and groundwater data collected in field.

# Color-Tech Analysis



- ⌘ Colorimetric gas detector tube method.
- ⌘ Using chlorinated ethene detector tube, detection limit of  $8\mu\text{g/L}$  for PCE --  $50\text{ g/L}$  for vinyl chloride.
- ⌘ Disposable costs of approx. \$4.00/sample.
- ⌘ One minute to generate results.
- ⌘ SOP available at:

📄 <http://www.epa.gov/superfund/programs/dfa/fldmeth.htm#detect>

# Field Activities



- ⌘ 18 continuous boreholes 8 to 12 feet deep collected in 2 days.
- ⌘ 91 soil samples screened at 18 locations.
- ⌘ 16 groundwater samples screened.
- ⌘ 4 monitoring wells installed on-site.
  - ☑ Locations optimized based on field data.
  - ☑ One less well needed than planned.

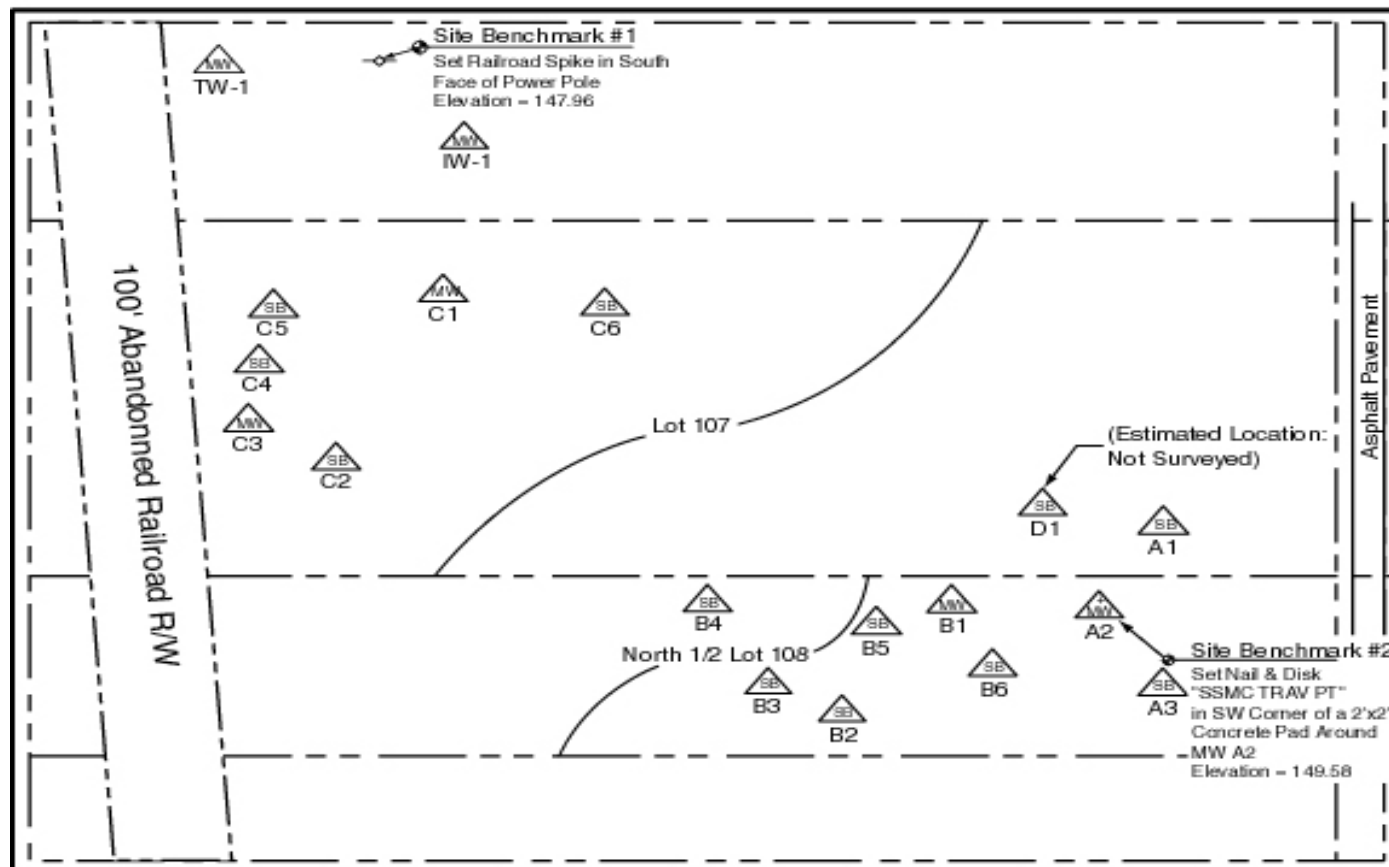


# Field Activities (Con't)



- ⌘ All sampling at site completed within 4 days
- ⌘ Fixed laboratory data generated on 6 groundwater samples (4 on-site, one up-gradient, one down-gradient).
  - ☑ Data reported within 8 days of initial sampling.

# Sample Locations



# Results



⌘ Elevated levels of contaminants in groundwater.

- ☑ VOCs detected in all 4 monitoring wells and 2 off-site irrigation wells.
- ☑ PCE concentrations of 7300  $\mu\text{g/L}$  in A-2.
- ☑ VOCs (TEX) of 1000 to 8000  $\mu\text{g/L}$  in C-3.
- ☑ SVOCs (naphthalene and isophorone) in C-3 were 2 to 5 times greater than state guidance

